

REMARKS

Claims 6-12 are pending in this application for the Examiner's review and consideration. Claims 1-5 were canceled. Claims 6, 7, and 12 were amended, at the Examiner's recommendation, to address objections due to informalities and to more clearly recite the invention. No new matter is added by these claim amendments so that their entry at this time is warranted.

Objection Under 37 Code of Federal Regulations (C.F.R.) § 1.67

The Examiner objected to two aspects of the declaration, including the interlineation regarding Mr. Ostermann's country of citizenship and the date of the priority PCT application. Applicants respectfully request that the Examiner waive these errors. First, we note that the date of the declaration contains the proper PCT number of the priority PCT application. Notwithstanding the error in the date, the correctly numbered PCT application provides enough information to properly identify the priority date of the application. Second, we note that Mr. Ostermann's signature and date on the declaration serve as affirmation of his interlineated country of citizenship. It is clear on the face of the declaration that Mr. Ostermann's country of citizenship is Australia, not Germany.

Objection Under 37 Code of Federal Regulations (C.F.R.) § 1.72 (b)

The Examiner objected to the absence of an abstract of the disclosure as required under 37 C.F.R. § 1.72 (b). An abstract is presented on a separate sheet to address the requirement of 37 C.F.R. § 1.72 (b). Further to the Examiner's suggestion, the abstract from the PCT application is presented with the term "computer control means" replaced by "computerized controller."

Rejection Under 35 U.S.C. 103

Claims 6-7, 9, and 11 were rejected under 35 U.S.C. § 103 as allegedly being obvious over the abstract and drawings of JP 3-270899 to Maeda *et al.* ("Maeda") in view of the abstract and drawings of JP 8-23888 to Saito ("Saito"). Applicant respectfully traverses the rejection for the reasons that follow.

Maeda discloses a device for punching a circular hole in a sheet or card in which a moving core is propelled to depress a punch pin and thus cut a hole in the sheet or card. *See* Maeda, Abstract and Drawings. The moving core is ordinarily biased upwards by a spring. *Id.* A space

defined between the moving core and a stationary core surrounding the spring provides a blast of compressed air which ejects the residue from the punch pin. *Id.* Maeda does not disclose the use of a solenoid to cause a plunger or pin to eject residue when cutting.

Saito teaches a motor-operated, lead-feeding mechanical pencil. *See* Saito, Abstract and Drawings. A solenoid is used to continuously advance a predetermined amount of lead held by a chuck. *Id.* The solenoid does not expel the lead. *Id.*

The present invention is directed, in part, to a cutting tool comprising: (1) a cutting head defining a central bore adapted to cut and retain a sample of material; (2) a plunger disposed in the bore defining a rod which is disposed in and movable along the bore, the plunger being either formed of a ferro-magnetic material or having a portion of ferro-magnetic material attached thereto; and (3) a solenoid disposed around the plunger or ferromagnetic material wherein operation of the solenoid causes the plunger to move to eject the sample of material from the cutting head.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art references must teach or suggest all of the claim limitations. *See* Manual of Patent Examining Procedure (MPEP) § 2142, citing *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). Applicant submits that these criteria are not met in this case for the following reasons.

First, there is no motivation to combine Maeda with Saito. There is no suggestion or motivation in Maeda and Saito to modify the references or to combine their teachings to arrive at the claimed invention. As previously discussed, Maeda discloses a device for punching a circular hole in a sheet or card. Saito, in contrast, relates to a mechanical lead pencil. There is no nexus between punching devices and mechanical pencils. Nor would one skilled in the art of excision apparatuses consider art relating to a mechanical lead pencil as relevant to solving excision apparatus problems. The solenoid used in the mechanical pencil of Saito is employed to continuously advance a predetermined amount of lead, not to discretely expel a sample. Further, the lead is held in a chuck, not expelled by a plunger. Thus, one skilled in the art of excision, who is familiar with Maeda, would not look to Saito to solve problems related to expelling a sample, in part because Saito does not employ a device that acts as a plunger. For at least this reason, the combination of Maeda and Daito does not render obvious independent claims 6 and 7, and dependent claims 9 and 11, of the present invention.

Second, even if there were a motivation to combine Maeda and Saito—which, as discussed, there is not—there would not be a reasonable expectation of success. As discussed, Maeda discloses a device for punching a circular hole in a sheet or card, and Saito discloses a mechanical lead pencil. In contrast, the claimed invention recites a cutting tool that is particularly designed for excising and ejecting biomolecules from an array of biomolecule samples in a gel or solid support. There would be no reasonable expectation of success in applying the technologies of Saito and Maeda, which relate to mechanical pencils and devices for punching holes in sheets, to arrive at a cutting tool designed to excise and eject biomolecules from an array of solid or gel-based samples. For this additional reason, the combination of Maeda and Saito does not render obvious independent claims 6 and 7, as well as dependent claims 9 and 11, of the present invention.

Third, the combination Maeda and Saito would not teach or suggest each and every limitation of the claimed invention. Maeda does not teach or suggest all of the claim limitations, including the claim limitations of amended independent claims 6 and 7 regarding a solenoid disposed around the plunger or ferromagnetic material “wherein operation of the solenoid causes the plunger to move to eject the sample of material from the cutting head” (claim 6) and “for causing the pin to move in the bore in a direction which expels material from the cutting tip when the solenoid is energised” (claim 7). Maeda does not teach or suggest using a solenoid-driven plunger to expel a sample. Saito does nothing to resolve this deficiency, in part because Saito does not teach the use of a plunger at all. Instead, Saito teaches the use of a chuck which is employed to hold pencil lead, not a sample to be excised. Moreover, the solenoid-driven chuck in Saito is used not to expel a sample, but rather to continuously advance a predetermined amount of lead. Thus, the combination of Maeda and Saito does not teach or suggest each and every limitation of independent claims 6 and 7 of the present invention. For this additional reason, the combination of Maeda and Saito does not render obvious independent claims 6 and 7, as well as dependent claims 9 and 11, of the present invention.

Claim 10 was rejected under 35 U.S. § 103(a) as being unpatentable over Maeda in view of Saito, and further in view of U.S. Patent No. 2,712,176 to Delaney *et al.* (“Delaney”). Applicant respectfully traverses the rejection for the reasons that follow.

Delaney is a 1955 patent disclosing a design for a can opener in which the cutting tip is removable. *See* Delaney, Figs. 1 and 5 and col. 2, line 70-col. 3, line 8.

As discussed above, the combination of Maeda and Saito does not render obvious independent claim 7 of the present invention. Since claim 10 depends from claim 7, the combination of

Maeda, Saito, and Delaney must render obvious claim 7 of the present invention. Delaney does nothing to resolve the above-described deficiencies in Maeda and Saito. For at least this reason, the combination of Maeda, Saito, and Delaney does not render obvious dependent claim 10 of the present invention.

CONCLUSIONS

It is respectfully submitted that all claims are now in condition for allowance, early notice of which would be appreciated. Should the Examiner disagree, Applicant respectfully requests a telephonic or in-person interview with the undersigned attorney to discuss any remaining issues and to expedite the eventual allowance of the claims.

No additional fees are believed to be required for this submission. Should any fees be required, however, please charge those fees to Morgan, Lewis & Bockius LLP deposit account no. 50-0310.

Respectfully submitted,



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Date: March 22, 2005

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